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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,450	03/23/2004	Yutaka Adegawa	Q80609	1807
65565 7590 12/20/2006 SUGHRUE-265550 2100 PENNSYLVANIA AVE. NW WASHINGTON, DC 20037-3213			EXAMINER MCCLENDON, SANZA L	
			ART UNIT	PAPER NUMBER
			1711	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/20/2006	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/806,450

Applicant(s)

ADEGAWA, YUTAKA

Examiner

Sanza L. McClendon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 15 is/are rejected.
- 7) ☒ Claim(s) 12-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the Amendment received on October 16, 2006, the examiner has carefully considered the amendments. The examiner acknowledges the cancellation of claim 3 and the addition of new claims 13-15.

### ***Response to Arguments***

2. Applicant's arguments filed October 16, 2006 have been fully considered but they are not persuasive. It appears applicant is arguing that because Lichtenhan et al fails to anticipate the instantly claimed invention because R is only "generically" discloses that at least one R group may be vinyl and that there are "no specific examples of a polymer having such groups and further does not disclose any working examples, thereof, the performance of a polymer having an alkenyl group". The examiner disagrees. Lichtenhan et al discloses, per column 3 and column 4 line 60, that compound X-M-X comprises compounds, wherein M may be selected from a group consisting of Si (CH)<sub>3</sub> (vinyl) in the synthesis to obtain the polymer comprising alternating silsesquioxane and bridging group segments according to the disclosure. Per column 3 lines 46 and 63 and column 4 lines 18-20, the two polyhedral silsesquioxane starting materials may having alkenyl/vinyl/allyl and the like substituents. Lichtenhan et al teaches polymers obtained by the teachings set forth therein, wherein in lines 20-23 there are two polymers having vinyl groups. And, additionally, per example 2 in Table I, example 1b is a polymer as set forth by teachings that comprises vinyl substituents and gives properties of said polymer. The examiner deems any one of ordinary skill informed by the teachings of Lichtenhan would not have had to choose judiciously from a genus of possible combinations of R groups to obtain the subject matter of which applicant's film-forming material per se claims as instantly set forth.

Regarding applicant's property argument as set forth on page 14, the properties as stated/argued are not found in the claims as presently found. Therefore these arguments are moot.

Therefore, the examiner deems that Lichtenhan et al teach a polymer, that has use in thermal insulation coatings, that anticipates applicant's instantly claimed polymer,

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wherein the at least one of the R substituents satisfies the condition of having a carbon-carbon double bond.

***Claim Rejections - 35 USC § 102***

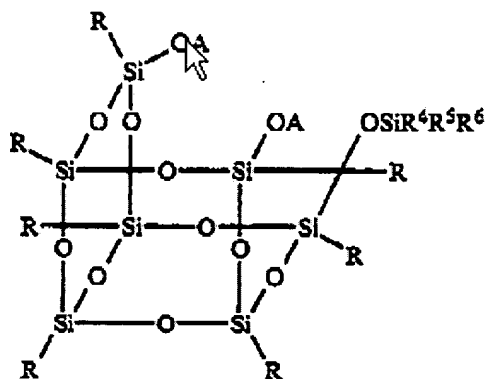
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 4 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lichtenhan et al (5,412,053 and 5,589,562).

Lichtenhan et al teaches reacting a difunctional silsesquioxane monomer having a formula such as:

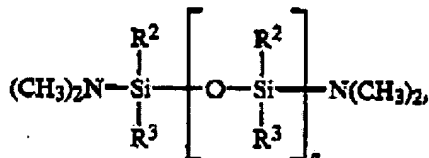
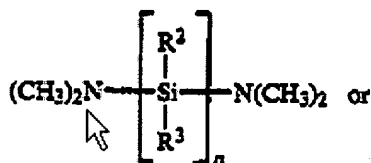


formula

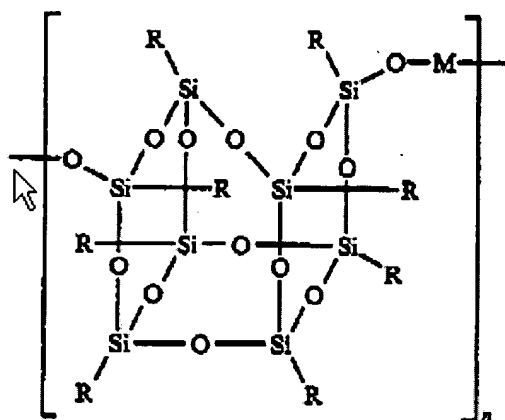
X-M-X.

with a difunctional compound of the  
The preferred being:

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, wherein the definitions for R, R<sup>2</sup> and R<sup>3</sup> can be found in column 4, wherein these are deemed to anticipate at least some of the definitions of claims 1-2. Claim 3 is met when a vinyl or allyl or other alkylene group is chosen per definitions found in column 4, which satisfied applicant's condition (ii). The examiner deems the reaction product anticipates applicant's instantly claimed general formula (1) with at least some of the corresponding definitions. For instance, the OSiR<sup>4</sup>R<sup>5</sup>R<sup>6</sup> as found in the above formula anticipates instant formula (IA) since the R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> can be monovalent constituents—see column 3, lines 65 to end. The reaction product of the above with the difunctional compounds is represented by the following formula (4). Wherein M can be selected from those found in column 3, lines 1-5. It is deemed that when M is Si(CH<sub>3</sub>)<sub>2</sub> or Si(CH<sub>3</sub>)<sub>2</sub>(CH<sub>2</sub>)<sub>2</sub>Si(CH<sub>3</sub>)<sub>3</sub> applicant's instant claim 1 is met (i.e., when either R<sup>15</sup> is a single bond, m is 0, and/or R<sup>16</sup> and R<sup>18</sup> are either single bonds or divalent organic groups). Lichtenhan et al teaches said reaction products can be used to produce thermal insulation or for protective coating among others—see column 3, lines 10-20. Therefore it is deemed that applicant's insulating-film forming material is anticipated by the reference.



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no


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event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L. McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Sanza L. McClendon  
Examiner  
Art Unit 1711  
12/16/06

SMc